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ABSTRACT

The intent of this investigation was to perform a validation study to determine whether RACE (Racial Attitude and Cultural Expression test) differentiates between primary grade students identified as having negative and positive attitudes. Students were categorized by a combination of administrator, teacher and clinical assessment into a negative or positive racial attitude group. These students were administered RACE to determine whether it could discriminate and whether an acceptable level of reliability was present. The variables of Linear Distance, Student Inclusion, Identification, and Power demonstrated acceptable reliability and discrimination levels. Even though selected variables discriminated, overall, the instrument failed to discriminate positive and negative student attitude groups. (Author)

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ABSTRACT

The intent of this investigation was to perform a validation study to determine whether RACE (Racial Attitude and Cultural Expressions test) differentiates between primary grade students identified as having negative and positive attitudes. Students were categorized by a combination of administrator, teacher and clinical assessment into a negative or positive racial attitude group. These students were administered RACE to determine whether it could discriminate and whether an acceptable level of reliability was present. The variables of Linear Distance, Student Inclusion, Identification, and Power demonstrated acceptable reliability and discrimination levels. Even though selected variables discriminated, overall, the instrument failed to discriminate positive and negative student attitude groups.

FINAL REPORT

Project No. 3-1639

Grant No. NE-G-00-3-0052

A VALIDATION STUDY OF RACE
(Racial Attitude and Cultural Expression Test)

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T.S.
F.C.S.

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SECTION I -- PROBLEM STATEMENT AND LITERATURE REVIEW

Gordon Allport (2) reports that in one unpublished study, several hundred essays were written by college students on the topic "My experience with, and attitudes towards, minority groups." When analyzed, it turned out that these documents contained clear admissions of group prejudice in 80 per cent of the cases. Various studies tempt us to estimate that four-fifths of the American population harbors enough antagonism toward minority groups to influence their daily conduct.

Joseph Alsop, conservative columnist, has said that if the worst racist in America set out to design a structure to keep Blacks enchained, he could do no better than to use the American Public School system. It seemed appropriate that vehicles be created to examine school systems, to determine the extent to which racism exists.

Explorations of numerous sources for available instruments to measure attitudes towards race among elementary school children established the fact that reliable and valid instruments are nonexistent. This study proposed to field test an instrument designed to measure the socio-cultural awareness and prejudices of black and white children towards each other. The instrument, if valid, was intended to assist educators in determining the extent of various racial beliefs in school systems. Data gathered by this instrument could be used to determine whether there is a need to implement programs to combat racism and/or to evaluate existing programs in race relations in elementary schools.

Behavioral scientists have demonstrated that children, even before they reach school age, absorb the inter-group fears, suspicions, biases, unfriendliness, and prejudices that characterize the prevailing ethos of the home and neighborhood. Black American youngsters who still suffer rejection in the social order are probably already deeply conditioned by such hurtful influences by the age of six.

Eminent social scientists (Arter, 1959, p. 186) have also produced a wide range of social investigations of the effects on children of prejudice against minority groups. Much of this research related to the Supreme Court of the United States' decision on school desegregation in 1954. Such utilization of research findings may in the future contribute an even greater part in the shaping of public legislative policy.

Research on intergroup attitudes has had other practical consequences. Findings have been much discussed by educators, parent groups, and others professionally or personally concerned

with children. Numerous articles have appeared in magazines and newspapers; countless conferences have convened for the purpose of discussing how prejudice is learned and how such learning can be prevented or retarded.

Clearly this decade has been marked by enormous changes in national policy and in public interests and attitudes as well. Knowledge concerning prejudice is greater; concern for the realization of democratic ideals is stronger. A great surge toward this realization is in progress. Relevant research has both contributed to and has been stimulated by these changes. However, the volume and depth of research accomplished is less than might have been expected under the circumstances. The lack of adequate instrumentation might be one reason for this paucity of research on racial attitudes. Stereotypes concerning the innate inferiority of Blacks are decreasing (27), but beliefs concerning low motivation and the presence of immorality among Blacks are still held by a large proportion of the white population (6). Children are exposed to these common sets of attitudes, and investigators have demonstrated that the content of racial preferences is generally similar among young children in different sections of the country (9).

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Sherif and others (1961, p. 198) have stated that prejudice seems to be a social and cultural phenomenon. Prejudice is mainly sustained by social usages and sanctions. It seems highly probable that prejudice based on conformity to the social customs of a group is the most common in our own society. The individual, with his particular psychological make-up, his needs or frustrations, is always subject to these customs, and "the problem of intergroup behavior...is not primarily the problem of the behavior of one or a few deviate individuals."

What factors contribute to the formation of racial attitudes? Goodman (16) suggests several major variables which influence the age at which these racial differences are realized:

1. Children observe the reactions of others to theirs and other children's appearances.
2. Children hear remarks made about skin color, hair and facial features and alerts the children to the fact that there are others who look different.
3. Cognitive development.
4. The child's perceptual keenness and growth of logic determine when differences are noted and given significance.

The child becomes aware of racial categories and the evaluations attached to them.

The family is important in the transmission of attitudes. However, Horowitz (17) and Goodman had difficulty in determining

the extent of direct parental instruction, since parents were unwilling to admit that they taught children to be prejudiced or were unaware of having done so. Horowitz's study dealt with parental instruction of white children. However, Coles' (10) studies suggest that this variable is also important in black families.

Children often overhear conversations between parents. Adults are often unaware that children, while at play, may be listening.

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Erik Erikson (13) suggests that minute displays of emotion such as affection, pride, anger, guilt, anxiety..., transmit to the child the outlines of what really counts in his world. Therefore a child may already be convinced that blacks are inferior long before he's told.

Helen Trager and Marion Yarrow (31), and Charles Bird (5) indicate that there is not a one-to-one relationship between the attitudes of children and their parents. Young children may pick up attitudes from their peers. The teacher's attitudes and how she handles racial incidents may influence the child.

The mass media are another means of attitude transmission since Suzanne Keller (18) estimates that three-fourths of the lower-class, six-year-old children spend at least two to five hours daily watching television. Stereotype portrayals are disappearing, however; the majority of popular roles for blacks portray them in strong middle class, which is far removed from the average ghetto experience. A majority of the television commericals are dominated by whites enjoying life. This suggests to white children that the good life belongs only to them and to black children that the good life is unobtainable for them.

Trager's (31) data clearly demonstrate that young children are sensitive to the racial occupancy of social roles; for instance, a child may observe blacks only in such roles as maid, janitor, or laborer. Trager's study also shows that children are aware of the relationship between race and poor housing and that there is a tendency for white children who ascribe inferior roles to Blacks to be hostile or rejecting toward them on the attitude test.

Although the mechanisms which transmit attitudes are similar for all children, the extent of these feelings and the reactions to them is affected by the child's psychological and sociological environment and his racial membership.

Goodman (16), using a matching-doll family technique, presents the general conclusion that children began to develop racial awareness at an early age. It has been reported by Clark (9), using the doll-play technique, that "among three-year-old Negro children in both northern and southern communities, more than 75% showed that

they were corscious of the differences between "white" and "colored." These findings clearly support the conclusion that racial awareness is present in Black children as young as three. Furthermore, this knowledge develops in stability and clarity from year to year, and by the age of seven it is a part of the knowledge of all Black children.

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Landreth and Johnson (20), questioning whether such findings would appear equally in children of lower and upper-socio-economic status, studied white three- and five-year-olds of conspicuously different status backgrounds. They conclude that the higher status inclines to "perceive skin color in cognitive terms," while lower status children "perceive it in affective terms." But in both groups a majority of children did perceive it, at both age levels as did the lower status Black children they studied. In summary: "Patterns of response to persons of different skin color presented as early as three years and become accentuated during the succeeding two years."

Moreland (23), studying three-, four-, and five-year-olds, found that over a third of three-year-olds, Black and White children averages, to be either "high" or "medium" in "ability to identify pictures of Blacks and whites." He reports that "recognition ability was found to progress regularly with age and to have its fastest development during the child's fourth year."

Most of the research concludes that by the age of four, nearly all normal children will be at least minimally and occasionally aware of the physical marks of race and many will have developed distinct in-group/out-group orientations.

Clark (9) concludes that the child's first awareness of racial differences is...associated with some rudimentary evaluation of these differences...Moreover, the child...cannot learn what racial group he belongs to without being involved in a larger pattern of emotions, conflicts, and desires which are part of his growing knowledge of what society thinks about his race. This would suggest that racial awareness leads to racial preference.

Allport (1954, p. 297) has generalized that the first six years of life are important for the development of all social attitudes, though it is a mistake to regard early childhood as having the sole responsibility for the development of these attitudes. A bigoted personality may be well underway by the age of six, but by no means fully fashioned.

Every society shapes its educational institution to perpetuate its culture--its values, its traditions, and its way of life. The educational institution of the United States has helped to perpetuate the values, traditions, and way of life which have brought about, finally, the crisis that confronts our nation today.

The structure accomplishes this in two ways: by failing to provide the children of the middle class with a true perception of the position of the various cultures, including their own, in relation to American civilization as a whole; and by failing to provide the children of the poor and the black, not only with a true perception of the value of their cultures to the nation, but even with the mental skills and factual knowledge necessary to cope with the technological civilization in which they are to spend their lives. Thus the educational institution preserves the middle class culture intact from the influence of the other cultures in our nation by teaching all children that the middle class culture alone is good and acceptable (25).

Social institutions are the great conservers and transmitters of the cultural heritage. The school is one of the most important institutions engaged in preserving and passing on the knowledge, skills and techniques of the society. Therefore, it seems reasonable to develop instruments that can assess the racial attitudes of black and white students so that our "cultural transmitter," the school, can respond to problems of student racism.

Inasmuch as one role of the American school is to assist people in living in a democratic society, the schools must respond by designing programs that may assist different racial groups in living and working together harmoniously with mutual respect.

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SECTION II -- METHODOLOGY

Instrument Conception

Early in the Spring of 1971 the need for an instrument to measure racial attitudes of children was identified through communications between the Director of Community-School Relations for the Syracuse City School District and the Director of Research for the School of Education at Syracuse University. The instrument (see Appendix A) used in this study was designed by the authors and the items were structured similar to the Self-Social Symbols Task (Ziller et al., 1966, p. 76). The items for RACE (Racial Attitudes and Cultural Expressions Test) are founded on a theoretical base established from the literature. Each item is replicated in order to provide internal consistency checks on each response set. The scoring of RACE is done by hand and is assumed to provide interval data. Appendix B contains the scoring procedures. It is highly probable, based on most psychological and educational scales, that the RACE items approximate equality fairly well.

The instrument is designed so that reading skills are not required for the student to be able to respond. It has twelve (12) tasks to be performed for which the directions can be read and described by the teacher. Each task has a picture or a group of pictures which the student may arrange in any manner he/she desires in relationship to him/herself. These pictures are of Black and White males and females.

Item 1 has twelve (12) pictures of students and a stamp labeled "me." The student is instructed to put them into groups of one or more. Three (3) scores are obtained from the scoring of this item which identify the variables which are referred to as Integration 1, Student Inclusion 1, and Linear Distance 1.

Item 12 is identical to item 1 in that the same task is to be performed but with different pictures. The three(3) scores obtained are identified as the variables referred to as Integration 12, Student Inclusion 12, and Linear Distance 12.

Item 2 has six (6) horizontal boxes with picture of a White female in one of the end boxes. The student is instructed to write a word "me" in one of the boxes. Item 6 has the same arrangement and instruction except that it has the picture of a White male in one of the end boxes. Items 8 and 11 have the same arrangement and instruction except that they have the picture of a Black male and female, respectively.

Scores from items 2, 6, 8 and 11 are combined to become the identification variable. Scoring procedures are different for Black and White respondents.

Item 3 has six (6) boxes with a picture of a Black male in the center of the arrangement where there is a square above the picture, a square at

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the upper right, one directly opposite, one at the lower right, and one directly beneath. The student is instructed to write the word "me"in one of the boxes. Items 5, 7, and 10 have the same arrangement except that they have the picture of a White male, a Black female, and a White female, respectively. Items 3, 5, 7 and 10 were combined to become the power variable.

Item 4 has five (5) vertical boxes, four pictures to represent each sex and race, and the word "me." The student is instructed to arrange the pictures and "me" in a column. Two scores are obtained from item 4 which are Power 4 and cross-racial reference 4.

Item 9 has the same arrangement and instructions. Two scores are obtained from this item which are Power 9 and Cross-racial Reference 9.

Reliability

The usefulness of an attitude instrument depends upon its properties, that is: 1) reliability (yield consistent results) and 2) validity (a measure of what it is purported to measure).

For purposes of this study, the test-retest method was used. The instrument was used to measure the attitudes of 205 students. Approximately two weeks after the first survey a retest was administered to a random sample of thirty-six of the students of the original group. This time span of two weeks was an interval between tests that was assumed to be long enough to minimize the effects of memory, but short enough to minimize the effects of other variables. The thirty-six students selected represented the same range of scores obtained from the original group. The correlation between the two sets of scores was computed. A Pearson's Product Moment correlation coefficient was the reliability estimate used in this study.

Validation Strategy

In March, 1972, the Syracuse City School District held a two-day workshop on "Black Perspective in Education" for all elementary principals and supervisory personnel. Thirty (30) of the thirty-one (31) elementary principals were present. One of the investigators was given the opportunity to give each principal a copy of the instrument. The purposes for which the instrument was designed were explained and questions answered. All the principals expressed the desire to be involved in the survey.

The population used in this study comprise fourth grade students from all the elementary schools of the Syracuse City School District. The schools range in size from two hundred ninety (290) to one thousand eighteen (1,018). The racial composition ranged from one and two-tenths percent (1.2 percent) to eighty-six percent (86 percent) Black population.

Appendix C contains the size of all the elementary schools used in this study and their racial composition.

The instrument was administered to a sample of two hundred five (205) fourth grade students selected on the basis of specific indicators.

The principals of these schools were asked to identify students based on the composite judgment, where available, of two or more: classroom teacher, guidance counselor, social worker, administrative assistant, lunch and recreational aides (who have supervised children during lunch hour as they eat and play together), and/or current records of office referrals for disciplinary actions. Principals were asked (sample letters are in Appendix D) to identify students who exhibit the behaviors listed below:

1. White boys and girls who have problems relating to Black children.
2. Black boys and girls who have problems relating to White children.
3. White boys and girls who get along well with or have close relationships with Black children.
4. Black boys and girls who get along well with or have close relationships with White children.

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Sample

Twenty-five (25) schools responded to the request to participate in this study and to identify fourth grade children having positive and/or negative attitudes towards members of the opposite race.

These schools identified the following numbers in the eight (8) categories:

Positive Attitudes

Black males	96
Black females	83
White males	125
White females	100
Total	404

Negative Attitudes

Black males	37
Black females	38
White males	32
White females	30
Total	137

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The authors attempted to select an equal number of students from the eight (8) categories. It appeared that a maximum of thirty (30) students in the various categories was possible. The number thirty (30) was used because it was the lowest category frequency. Each category of students was identified by a code number. From the students listed a table of random numbers was used to select from the twenty-five (25) schools, thirty (30) students from each of the eight (8) categories. The two hundred forty (240) instruments were sent to the various schools with the instructions found in Appendix E. In a few instances some students were absent when the instruments were administered and a few students did not choose to complete the instrument. This resulted in two hundred five (205) instruments being returned to the investigator in the following categories:

Positive Attitudes

Black males	27
Black females	27
White males	29
White females	24
Total	107

Negative Attitudes

Black males	29
Black females	23
White males	27
White females	19
Total	98

A random sample of the two hundred five (205) students was made and ten (10) schools were selected. An attempt was made to randomly select five (5) students from each of the eight (8) groups to re-test forty (40) students. Thirty-six (36) students responded and supplied the data for the test-retest method of reliability. The groups were as follows:

Positive Attitudes

Black males	5
Black females	4
White males	5
White females	4
Total	18

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Negative Attitudes	
Black males	5
Black females	5
White males	4
White females	4
Total	18

Other Procedures

The teachers were asked to indicate why they placed children in these categories. A checklist of behavioral indicators was provided for each teacher to select specific reasons for their classification of each child.

This study takes into account the socio-economic status (SES) of individuals. The determination of SES has been approached in numerous ways. Fauman (1968-69, pp. 53-60) determined SES by using occupation, income, education, race and/or religion and ethnic origin. Asher and Allen (1969, p. 53) in their research, used the parent's occupation to determine SES. Research done by Davis and Havighurst (1946, pp. 698-710) used husband's occupation, Epstein and Komorita (1966, pp. 259-64) used the residential area, and Parker and Kleiner (Goldschmid, 1970, p. 94) used the educational achievement to determine SES.

This study used the following as indicators of the SES of children:

1. Educational level of Head of Household
2. Occupation of Head of Household.
3. ADC (Aid to dependent children).

Research Design

In this study, five variables (sex, RACE, behavioral classification of racial attitudes, SES, and race) were utilized. Teacher classification of students' racial attitudes and the race of the students were two independent variables. These two dichotomous variables were related as shown below:

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Racial Attitude	Race of Student: Black	Race of Student: White
Negative	RACE Scores	RACE Scores
Positive	RACE Scores	RACE Scores

The dependent variable for this study is the instrument to be validated (RACE). Scores for fourth grade students on RACE will be compared by race and racial attitude of children.

An analysis was performed to determine the correlation between RACE scores and the SES of the student. This analysis was based on the literature which relates SES and racial attitudes. By doing this analysis, additional data on the validity of RACE was secured.

The literature suggests that racial attitudes of children will vary according to sex. To replicate these findings, an analysis using t-tests was performed to determine whether male and female students with negative and positive attitudes differ on their response to RACE.

Sex	Race of Student: Black	Race of Student: White
Male	RACE Scores	RACE Scores
Female	RACE Scores	RACE Scores

Hypotheses

Based on the review of the literature, the following are the specific relationships tested in an attempt to determine the validity of RACE. Variances in measures were analyzed using t-tests and chi-square analyses were utilized with nominal data.

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H_1: Fourth grade students classified as having negative racial attitudes will scores significantly lower than those having positive racial attitudes independent of the race of the student.

H_2: Fourth grade Black students classified as having negative racial attitudes will score significantly lower than those having positive racial attitudes.

H_3: Fourth grade White students classified as having negative racial attitudes will score significantly lower than those having positive racial attitudes.

H_4: Fourth grade Black students will not differ significantly from White students independent of racial attitude.

H_5: There will be a high positive correlation between RACE scores and socioeconomic status of White fourth grade students.

H_6: There will be a high positive correlation between RACE scores and socioeconomic status of Black fourth grade students.

H_7: Within the negative racial attitude group, Black males will score higher on RACE than Black females.

H_8: Within the negative racial attitude group, White males will score higher on RACE than White females.

The intent of these hypotheses was to guide the validation effort. If the test could discriminate those students with negative and positive attitudes, the inference was that it is a valid instrument.

The testing of these hypotheses was performed using analysis of variance and t-tests. These statistical techniques were readily available using packaged programs operable on the IBM 370/150 computer system at Syracuse University.

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SECTION III -- RESULTS & FINDINGS

This chapter is devoted to the description and analysis of data used to validate the instrument to measure racial attitudes in young children. The first part deals with the issue of reliability and the second part deals with validity, which includes teacher judgment of attitudes of children, socio-economic status, and a test of each hypothesis presented in Section II.

In order to understand the results of this study it is necessary to define each of the twelve (12) variables used. Appendix B contains additional information about the construction and scoring of each of the items of RACE. The working definitions for these variables are as follows:

Integration 1 and 12: Degree of mixed racial composition in student selected group. Integration 1 and 12 are derived from items 1 and 12, respectively, in the instrument as described in Section II.

Student Inclusion 1 and 12: Degree to which a student integrates himself/herself into a mixed racial group. Student Inclusion 1 and 12 are derived from items 1 and 12, respectively, in the instrument as described in Section II.

Linear Distance 1 and 12: Linear social distance of self from selected integrated group. Linear Distance 1 and 12 are derived from items 1 and 12, respectively, in the instrument as described in Section II.

Power: Perception of self in relationship to superior-inferior placement in terms of opposite racial group members. Power was obtained from the combined scores of items 3, 5, 7 and 10 as described in Section II.

Power 4 and 9: Nonadditive ranked perception of self in relation to members of own and opposite racial group. Power 4 and 9 are derived from items 4 and 9, respectively, in the instrument as described in Section II.

Identification: Proximity of self to own and opposite racial group members. Identification was obtained from the combined scores of items 2, 6, 8 and 11 as described in Section II.

Cross-racial Reference 4 and Cross-racial Reference 9: Number of children of opposite racial group placed in inferior position to self. Cross-racial Reference 4 and 9 are derived from items 4 and 9, respectively, in the instrument as described in Section II.

The writers realize that it is customary to establish consistent correlation levels to determine what is significant. However, this study is an investigation of a new instrument and any degree of relationship may

become important when recommendations are made concerning the structure and content of the items within the instrument. A probability level of .01 may be an acceptable level of significance on which to test assumptions, but a probability level of .10 may be important since it may suggest a trend and hence the possibility for redesigning in the instrument. Therefore, probability levels from .10 to .001 were reported in this study. The blank cells in Table 2 do not imply that there was no inter correlation between the variables but that the correlation had a probability level $> .10$.

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Reliability

The concept of reliability has to do with consistency of measurement, the extent to which an individual's scores vary from one sampling to another. Pearson-Product Moment Correlation Coefficients were computed as indicators of reliability.

1. Test-Retest Reliability. The test-retest method was used in this study to determine reliability estimates. This reliability method measures error variance due to temporal variations in characteristics of the examinee, as well as variations due to test administration. Some of this temporal instability in conditions is due to variations from one testing occasion to another in the examinee's general characteristics, such as in his health or emotional tension. In other words, when the test-retest method is used, a coefficient of stability is obtained, which reflects variation in the examinee test performance from one testing occasion to another (Adams, 1964, p. 85).

Thirty-six (36) students responded and supplied the test-retest data presented in this study.

Table 1 presents the test-retest correlations over a two-week period for the twelve (12) variables that are identified on RACE between the first and second administration of the instrument. This table, also, includes the error variance on each item of the test.

The correlation coefficients presented in Table 1 lead one to assume that Student Inclusion 1, as designed in RACE to measure the degree to which a student can integrate him/herself into a mixed group, was found to be consistent between first and second administration of the instrument.

There was a correlation of 0.398. This may be interpreted to indicate that knowing a child's score on Student Inclusion 1 on the first testing would account for 16 percent of the variance in predicting how he/she would answer the same item on the next testing.

Linear Distance 12 as designed on RACE to measure the degree of social distance a student will place him/herself from a selected integrated group was consistent from first to second administration ($p < .02$). Linear Distance 12 had a correlation of 0.367. This may be interpreted to indicate that knowing a child's score on Linear Distance 12 on the first testing would recount for 13 percent of the variance in predicting how he/she would answer the same item on the next testing.

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Table 1

ITEM CORRELATION COEFFICIENT AND VARIANCE BETWEEN FIRST AND SECOND ADMINISTRATION OF RACE OVER A TWO-WEEK INTERVAL

Item	Correlation Coefficient	v^2
Integration 1	0.240	0.0576
Student Inclusion 1	0.398[b]	0.1584
Linear Distance 1	0.186	0.0346
Identification	0.273[e]	0.0745
Power	0.129	0.0166
Power 4	0.048	0.0023
Power 9	0.046	0.0021
Integration 12	0.321[d]	0.1030
Student Inclusion 12	0.087	0.0076
Linear Distance 12	0.367[c]	0.1347
Cross-racial Reference 4	0.300[e]	0.0900
Cross-racial Reference 9	-0.028	0.0008

[a]Significant at the .001 level.

[b]Significant at the .01 level.

[c]Significant at the .02 level.

[d]Significant at the .05 level.

[e]Significant at the .10 level.

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Integration 12 as designed in RACE to measure the degree of mixed racial composition in student selected group was found to be consistent between first and second administration ($p < .05$). Integration 12 had a correlation of 0.321. This may be interpreted to indicate that knowing a child's score on Integration 12 on the first testing would account for 10 percent of the variance in predicting how he/she would answer the same item on the next testing.

Cross-racial Reference 4 as designed on RACE to measure the degree to which a student would place him/herself in relationship to the number of children of the opposite racial group placed in inferior position to him/herself was found to be consistent between first and second administration ($p < .10$). Cross-racial Reference 4 had a correlation of 0.300. This indicates that knowing a child's score on Cross-racial Reference 4 on the first testing would account for 9 percent of the variance in predicting how he/she would answer the same item on the next testing.

Identification as designed on RACE to measure the degree of proximity of self a student will place him/herself to his/her own or opposite racial group was found to be consistent between first and second administration ($p < .10$). Identification had a correlation of 0.273. This indicates that knowing a child's score on Identification on the first testing would account for 7 percent of the variance in predicting how he/she would answer the same item on the next testing.

There is some reliability in these five (5) variables but it does not appear to be great enough to justify the categorization of a child's attitude based upon his/her score in these areas.

The test-retest correlation of the other seven (7) variables were not significantly different from zero. Therefore, there is very limited stability in this instrument over a two-week testing period.

2. Internal Consistency. An examination of the internal consistency of RACE is given in Table 2 where the responses from the 205 participants were examined to determine the correlation among items on RACE. Ten (10) of the variables can be described as five (5) pairs that are structurally identical, but different in content. That is, the tasks to be performed in items 1 and 12 were identical. Scoring procedures were, also, identical and separate scores were obtained. Three variables were included in each of these item pairs. Data from item 1 were obtained for Integration 1, Student Inclusion 1, and Linear Distance 1.

Data from item 12 were obtained for Integration 12, Student Inclusion 12, and Linear Distance 12.

Items 4 and 9 were identical in structure and content but different from items 1 and 12 in structure and content. Tasks to be performed and scoring procedures in items 4 and 9 were identical but separate scores were obtained. Two variables were included in each of these item pairs. Data from item 4 were obtained for Power 4 and Cross-racial Reference 4. Data from item 9 were obtained for Power 9 and Cross-racial Reference 9.

Therefore, it seems reasonable to assume that there are five (5) basic relationships one would predict should exist based on the derivation of the variables.

Table 2

INTER CORRELATION OF EACH ITEM ON RACE

(N = 205)	Integration No. 1	Student Inclusion No. 1	Linear Distance No. 1	Identification	Power	Power No. 4	Power No. 9	Integration No. 12	Student Inclusion No. 12	Linear Distance No. 12	Cross-Racial Ref. No. 4	
Student Inclusion No. 1	0.684[b]											
Linear Dist. No. 1	-0.245[b]	0.207[b]										
Identification	-0.226[b]	-0.113[d]										
Power												
Power No. 4				0.126[d]								
Power No. 9			-0.107[e]	0.103[c]		0.302[b]						
Integration No. 12	0.375[b]	0.357[b]		-0.166[b]		-0.210[b]	-0.142[b]					
Stud. Inclus. No. 12	0.260[b]	0.313[b]				-0.124[d]	-0.144[c]	0.714[b]				
Linear Dist. No. 12	-0.102[e]		0.100[c]	0.123[d]		0.196[b]		-0.268[b]	-0.310[b]			
Cross-Racial Reference No. 4	-0.108[e]	-0.154[b]			-0.121[d]	0.425[b]	0.246[b]					
Cross-Racial Reference No. 9			0.187[b]			0.150[b]	0.604[b]				0.307[b]	

[a]Significant at the .001 level.

[b]Significant at the .01 level.

[c]Significant at the .02 level.

[d]Significant at the .05 level.

[e]Significant at the .10 level.

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These relationships should be:

1. Positive correlation between Integration 1 and Integration 12.

2. Positive correlation between Student Inclusion 1 and Student Inclusion 12.

3. Positive correlation between Linear Distance 1 and Linear Distance 12.

4. Positive correlation between Power 4 and Power 9.

5. Positive correlation between Cross-racial Reference 4 and Cross-racial Reference 9.

Items 1 and 12 on RACE include six (6) variables (Integration 1 and Integration 12, Student Inclusion 1 and Student Inclusion 1 and Student Inclusion 12, and Linear Distance 1 and Linear Distance 12). Since these variables are derived from the same items, it seems reasonable to assure that there are three (3) basic relationships one would predict should exist.

The scoring procedure suggested that these relationships should be:

6. Positive correlation among the four (4) variables which are Integration 1 and Integration 12, Student Inclusion 1 and Student Inclusion 12.

7. That Integration 1 and Integration 12 will correlate negatively with Linear Distance 1 and Linear Distance 12.

8. That Student Inclusion 1 and Student Inclusion 12 will correlate negatively with Linear Distance 1 and Linear Distance 12.

Items 4 and 9 on RACE include four (4) variables (Power 4 and Power 9, and Cross-racial Reference 4 and Cross-racial Reference 9). Since these variables are derived from the same items, it seems reasonable to assume that there is a basic relationship one would predict should exist.

This relationship should be:

9. Positive correlation among the four (4) variables which are Power 4, Power 9, Cross-racial Reference 4 and Cross-racial Reference 9.

An item analysis was performed to examine the above assumptions to determine the internal consistency of the RACE instrument.

An examination of each cell in Table 2 reveals several interesting correlations. Integration 1 correlates positively with Integration 12 at 0.375 which is significant at $p < .01$. This indicates that Integration 1 and Integration 12 are related. Likewise, Student Inclusion 1 correlates positively with Student Inclusion 12 at 0.313 which is significant at $p < .01$ and are, therefore, related.

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However, when Linear Distance 1 is correlated with Linear Distance 12, one finds positive correlation at 0.100 which is significant at $p < .10$. This indicates that the degree of confidence one can place on the relationship between Linear Distance 1 and Linear Distance 12 is somewhat low.

Power 4 correlates positively with Power 9 at 0.302 which is significant at $p < .01$. This indicates a relationship between Power 4 and Power 9. The same finding exists when one correlates Cross-racial Reference 4 with Cross-racial Reference 9, because they, also, correlate positively at 0.307 which is significant at $p < .01$.

Student Inclusion 1 correlates positively with Integration 1 at 0.684, Student Inclusion 1 correlates positively with Integration 12 at 0.357, Student Inclusion 12 correlates positively with Integration 12 at 0.714, and Student Inclusion 12 correlates positively with Integration 1 at 0.260. These variables correlate at $p < .01$. However, it is interesting to note that the degree of correlations reveal that the relationship is much greater between Student Inclusion 1 and Integration 1, and Student Inclusion 12 and Integration 12 than the correlation between Integration 1 and Integration 12, Student Inclusion 1 and Student Inclusion 12, Student Inclusion 1 and Integration 12, and Student Inclusion 12 and Integration 1.

Integration 1 correlates negatively with Linear Distance 1 at -0.245 which is significant at $p < .01$, Integration 1 correlates negatively with Linear Distance 12 at -0.102 which is significant at $p < .10$, Integration 12 correlates negatively with Linear Distance 12 at -0.268 which is significant at $p < .01$, and Integration 12 does not correlate with Linear Distance 1. An examination of the scoring procedures (Appendix B) suggested a negative collection should exist, inasmuch as a high score on Integration indicated a highly integrated person, while a high score on Linear Distance indicated the average distance a person would place him/herself from an integrated group. This low negative correlation may exist since it was found that there was a low relationship between Linear Distance 1 and Linear Distance 12. Some inconsistency is found when one correlates Student Inclusion 1 with Linear Distance 1 which is positive at 0.207 and significant at $p < .01$, Student Inclusion 1 with Linear Distance 12 which does not correlate, Student Inclusion 12 with Linear Distance 12 which is negative at -0.310 which is significant at $p < .01$ and that Student Inclusion 12 does not correlate with Linear Distance 1. Therefore, this inconsistency may be due to the low relationship between Linear Distance 1 and Linear Distance 12.

Power 4 correlates positively with Cross-racial Reference 4 at 0.425 which is significant at $p < .01$, Power 4 correlates positively with Cross-racial Reference 9 at 0.150 which is significant at $p < .01$, Power 9 correlates positively with Cross-racial Reference 4 at 0.246 which is significant at $p < .01$, and Power 9 correlates positively with Cross-racial Reference 9 at 0.604 which is significant at $p < .01$. This indicates a higher degree of correlation and relationship between Power 4 and Cross-racial Reference 4, and Power 9 and Cross-racial Reference 9, than between Power 4 and Cross-racial Reference 9, and Power 9 and Cross-racial Reference 4.

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Further examination of Table 2 was necessary to determine the correlation among items on RACE that are different, both in structure and content. These differences do not allow one to predict any basic relationship. However, this examination was to determine if there was a relationship, and if so, whether it was consistent or inconsistent.

When one compares Integration 1 and Integration 12 with Indentification, it is found that they both correlate negatively with Identification at -0.226 and -0.166, respectively, which is significant at $p < .01$. This indicates an inverse relationship between both Integration 1, Integration 12 and Identification.

However when one examines Power 4, Power 9, with Identification, it is found that Power 4 correlates positively with Identification at 0.126 which is significant at $p < .05$, and that Power 9 correlates positively with Identification at 0.103 which is significant at $p < .10$. This indicates a chance relationship but the magnitude of this relationship is probably not strong enough to suggest that they are measuring the same characteristic.

On the other hand, Student Inclusion 1 correlates negatively with Identification at -0.113 which is significant at $p < .05$, and Student Inclusion 12 does not correlate with Indentification. This appears to be totally inconsistent and indicates a possible inverse relationship. The possibility of an inverse relationship is strengthened when one reviews the correlation between Integration 1 and Integration 12 with Identification, and keep in mind that the four (4) variables Integration 1, Integration 12, Student Inclusion 1, and Student Inclusion 12 correlated positively with each other at $p < .01$.

The above correlations revealed some degree of consistency, but some are very inconsistent. An examination revealed that Integration 1 did not correlate with Power 4 and Power 9. However, Integration 12 correlated negatively with Power 4 and, also, Power 9 at -0.210 and -0.192, respectively, which is significant at $p < .01$. This is inconsistent since Integration 1 correlated positively with Integration 12 at $p < .01$ as did Power 4 and Power 9. This seems to indicate that Integration 1, Integration 12, Power 4, and Power 9 may not be measuring the same characteristic and if there is a relationship it might tend to be negative, and therefore, an inverse relationship might exist.

Basically, the same inconsistent relationship exists when comparing Student Inclusion 1 and Student Inclusion 12 with Power 4 and Power 9, for one finds that Student Inclusion 1 did not correlate with Power 4 or Power 9, and Student Inclusion 12 correlated negatively with Power 4 at -0.124 which is significant at $p < .05$ and with Power 9 at -0.144 which is significant at $p < .02$.

An examination reveals that Linear Distance 1 does not correlate with Identification, and Linear Distance 12 correlates positively with Identification at 0.123 which is significant at $p < .05$.

Further examination reveals that Linear Distance 1 does not correlate with Power 4, but Linear Distance 1 correlates negatively with Power 9 at -0.107 which is significant at $p < .10$. However, Linear Distance 12 correlates positively with Power 4 at 0.196 which is significant at

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$p < .01$, while Linear Distance 12 does not correlate with Power 9. The above two examinations reveal inconsistency but it must be kept in mind that while Power 4 correlates positively with Power 9 at $p < .01$. Linear Distance 1 correlates positively with Linear Distance 12 at $p < .10$. The chance relationship between Linear Distance 1 and Linear Distance 12 may be the basis for their inconsistency in correlation with Identification, Power 4, and Power 9.

While the aforementioned variables revealed inconsistencies, some reveal little or no correlation.

One finds that Integration 1 correlates negatively with Cross-racial Reference 4 at -0.108 which is significant at $p < .10$, and it does not correlate with Cross-racial Reference 9, and Integration 12 does not correlate with Cross-racial Reference 4 or Cross-racial Reference 9. This indicates no relationship since Integration 1 correlates positively with Integration 12 at $p < .01$ as does Cross-racial Reference 4 and Cross-racial Reference 9, and suggests that they do not measure the same characteristic.

The same lack of a relationship is revealed when it is noted that Student Inclusion 1 correlates negatively with Cross-racial Reference 4 at -0.154 which is significant at $p < .01$, and does not correlate with Cross-racial Reference 9, and at the same time, Student Inclusion 12 does not correlate with Cross-racial Reference 4 or Cross-racial Reference 9.

Linear Distance 1 and Linear Distance 12 reveal similar relationship with Cross-racial Reference 4 and Cross-racial Reference 9, when it is noted that Linear Distance 1 does not correlate with Cross-racial Reference 4 but correlates negatively with Cross-racial Reference 9 at -0.187 which is significant at $p < .01$, while Linear Distance 12 does not correlate with Cross-racial Reference 4 or Cross-racial Reference 9.

Power is a variable that is completely different from the others in structure and content, and only correlates with one (1) of the eleven (11) other variables which is Cross-racial Reference 4 and is a negative at -0.121 which is significant at $p < .05$. This seems to indicate that Power measures a completely different characteristic from the variable.

3. Variance. Further analysis taken from Table 3 examined the error variance of some of the correlated variables.

Student Inclusion 12 was positively correlated with Integration 12 at $p < .01$. There was correlation of 0.714 between these variables. This was interpreted to indicate that knowing a child's score on one item would account for 51 percent of the variance in predicting how he/she would score on the other item.

Student Inclusion 1 was positively correlated with Integration 1 at $p < .01$. There was a correlation of 0.684 between these variables. This was interpreted to indicate that knowing a child's score on one item would account for 47 percent of the variance in predicting how he/she would score on the other item.

Cross-racial Reference 9 was positively correlated with Power 9 at $p < .01$. There was a correlation of 0.604 between these variables. This was interpreted to indicate that knowing a child's score on one item would

Table 3

VARIANCE ATTRIBUTED TO EACH ITEM ON RACE

	Integration No. 1	Student Inclusion No. 1	Linear Distance No. 1	Identification	Power	Power No. 4	Power No. 9	Integration No. 12	Student Inclusion No. 12	Linear Distance No. 12	Cross-Racial Ref. No. 4	Cross-Racial Ref. No. 9
Integration 1												
Student Inclus. 1	0.4679											
Linear Distance 1	0.0600	0.0428										
Identification	0.0511	0.0128										
Power												
Power 4				0.0159								
Power 9			0.0117	0.0104		0.0912						
Integration 12	0.1406	0.1274		0.0276		0.0441	0.0369					
Student Inclus.12	0.0676	0.0980				0.0154	0.0207	0.5098				
Linear Distance 12	0.0104		0.0100	0.0159		0.0384		0.0718	0.0961			
Cross-racial Ref.4	0.0117	0.0237			0.0146	0.1806	0.0605					
Cross-racial Ref.9			0.0350			0.0225	0.3648				0.0942	

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account for 36 percent of the variance in predicting how he/she would score on the other item.

Cross-racial Reference 4 was positively correlated with Power 4 at $p < .01$. There was a correlation of 0.425 between these variables. This was interpreted to indicate that knowing a child's score on one item would account for 18 percent of the variance in predicting how he/she would score on the other item.

The highest negative correlation was between Linear Distance 12 and Student Inclusion 12 at $p < .01$. There was a correlation of -0.310 between these variables. This was interpreted to indicate that knowing a child's score on one item would account for 10 percent of the variance in predicting how he/she would score on the other item.

Linear Distance 12 was negatively correlated with Integration 12 at $p < .01$. There was a correlation of -0.268 between these variables. This was interpreted to indicate that knowing a child's score on one item would account for 7 percent of the variance in predicting how he/she would score on the other item.

Analysis of all other comparisons were not done because the correlation among other variables were lower than the item in terse relations described in the above six examinations of variance, and, therefore showed little variance.

The examination of the data to determine the reliability of RACE was summarized. The information from Table 1 revealed that Student Inclusion 1 had the highest correlation coefficient on the test-retest administration of RACE for reliability. The reduction in error variance of 16 percent only allowed very few predictions on how a child would score. Therefore, there is very limited stability in this instrument over a two-week testing period. Thirty-four (34) cells in Tables 2 and 3 presented correlation among the twelve (12) variables. Eighteen (18) comparisions revealed positive correlation of $p < .10 - .01$. Sixteen (16) comparisons revealed negative correlation of the same magnitude.

It was assumed that there would be high positive correlation between Integration 1 and Integration 12, Student Inclusion 1 and Student Inclusion 12 because they were obtained from items 1 and 12, respectively, in the instrument. However the highest degree of positive relationship existed between Integration 12 and Student Inclusion 12, and Integration 1 and Student Inclusion 1. The same was true of Cross-racial Reference 9 and Power 9. Therefore items 1 and 12, and items 4 and 9 seem to be internally consistent sub-scores from any one item, and relate to each other more than to any other items.

A high degree of confidence existed in predicting how children would score when it was found that the variance was 51 percent when an examination was made of Student Inclusion 12 and Integration 12, 47 percent on Student Inclusion 1 and Integration 1 and 36 percent on Power 9 and Cross-racial Reference 9.

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Validity

The term "validity" is used to apply to a test's value as a basis for making judgments about examinees. Here one is concerned with relevance--the relationship of scores on the test to the criterion behavior we are really interested in studying. The question asked is whether the test measures the particular behavior that we designed it to measure?

1. Teacher Judgment. A checklist of ten (10) reasons for classifying children as having positive or negative attitudes towards members of the opposite race was given to teachers (Appendix D).

Table 4 is a summation of the reasons given for categorizing children as having positive attitudes and Table 5 does the same for children having negative attitudes.

One hundred seven (107) children were classified as having positive attitudes. A checklist of ten (10) reasons for such classification gave a total of 1,070 possible items that could be checked. Teachers responded with a total of 798 reasons for classifying children as having positive attitudes. This revealed that teachers checked an average of 7.5 reasons per child for each classification. In many cases all ten (10) reasons were checked.

Ninety-eight (98) children were classified as having negative attitudes. A checklist of ten (10) reasons for such classification gave a total of 980 possible items that could be checked for classifying children as having negative attitudes. Teachers responded with a total of 374 reasons for classifying children as having negative attitudes. This revealed that teachers checked an average of 3.8 reasons per child for each classification. In many cases, only one reason was checked for the classification. In fact, on an average, teachers found twice as many reasons for positive classifications than for negative.

There is a possibility that the teachers on whose ratings these data were based were subject to what Remmers (1963, p. 45) refers to as rating biases, in grading, that include various response sets, such as halo effect. The rating may have suffered from selective perception determined by the teacher's general liking or disliking of children being judged. This is to say that teachers may be inclined to rate a child based on how well he/she can "get along" with the child.

In Table 4 the reasons given for categorizing children as having positive attitudes were distributed so that no one reason was significantly different from the others.

In Table 5 Black males and females were categorized as having negative attitudes because they demonstrated authoritarian attitudes towards members of the opposite race to a greater degree than to their own race which was significant at $p < .05$. Also in Table 5, it was revealed that Black females and White males who demonstrated negative attitudes by making derogatory statements to members of the opposite race to a greater degree than to members of their own race was significant at $p < .10$.

Table 4

TEACHERS' REASONS GIVEN FOR IDENTIFYING CHILDREN AS HAVING POSITIVE ATTITUDES TOWARDS MEMBERS OF THE OPPOSITE RACE

Statement No.	Black Males (27)	Black Females (27)	White Males (29)	White Females (24)	Totals (107)	Chi Square
1	23	25	29	19	96	.725
2	21	22	25	18	86	.234
3	25	25	27	19	96	.383
4	19	21	23	17	80	.231
5	25	19	25	17	86	1.230
6	14	14	17	15	60	.353
7	16	18	22	19	75	.693
8	19	20	21	17	77	.039
9	19	15	19	17	70	.612
10	20	19	18	15	72	.421
Totals	201	198	226	173	798	

[a]Significant at the .001 level.
[b]Significant at the .01 level.
[c]Significant at the .02 level.
[d]Significant at the .05 level.
[e]Significant at the .10 level.

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Table 5

TEACHERS' REASONS GIVEN FOR IDENTIFYING CHILDREN AS HAVING NEGATIVE ATTITUDES TOWARDS MEMBERS OF THE OPPOSITE RACE

Statement No.	Black Males (29)	Black Females (23)	White Males (27)	White Females (19)	Totals (98)	Chi Square
1	9	13	13	11	46	2.507
2	18	12	9	8	47	2.629
3	8	15	14	12	49	4.656
4	7	15	17	8	47	6.263[e]
5	12	12	7	5	36	3.082
6	11	9	17	9	46	2.278
7	6	8	12	6	32	2.460
8	8	5	3	6	22	2.598
9	11	11	3	1	26	11.011[d]
10	2	4	1	2	9	2.773
11 (Shows Fear)	0	0	2	2	4	4.791
12 (No Reason Given)	6	2	1	1	10	4.749
Totals	98	106	99	71	374	

[a]Significant at the .001 level.
[b]Significant at the .01 level.
[c]Significant at the .02 level.
[d]Significant at the .05 level.
[e]Significant at the .10 level.

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2. Hypotheses Testing Validity.

H_1: Fourth grade students classified as having negative racial attitudes will score significantly lower than those having positive racial attitudes independent of the race of the student.

The summary of t-test in Table 6 compares scores of students with positive and negative attitudes on each item of RACE. It reveals only three (3) variables where students with negative attitudes score lower than students with positive attitudes. The three (3) variables are: Linear Distance 1, Linear Distance 12, and Power 4. Linear Distance 1 was significantly lower at $p < .01$. This seems to suggest that Linear Distance 1 is valid and appears to measure the attitudes of fourth graders as predicted.

Students identified as having negative attitudes scored higher on the other nine (9) variables than students identified as having positive attitudes, but not significantly.

On the basis of the statistical evidence H_1 was supported utilizing Linear Distance 1 at the .01 level.

Diagram A

	B	W	$\bar{X}$
+	-.27	.05	-.11
-	-.47	-.40	-.43
$\bar{X}$	-.36	-.18	

The diagram above was an attempt to further analyze Linear Distance 1. The mean scores of positive and negative attitudes were taken from Table 6. This analysis revealed that Black students scored lower than White students with mean scores of -.36 and -.18, respectively. This suggests that Linear Distance 1, as presented in RACE, might show a significant difference between Black and White students. Inasmuch as Table 6 reveals that students with positive and negative attitudes score significantly different on Linear Distance 1, and Diagram A reveals that there is also interaction between the races.

H_2: Fourth grade Black students classified as having negative racial attitudes will score significantly lower than those having positive racial attitudes.

The summary of t-test scores in Table 7 compares Black students with positive and negative attitudes on each item of RACE. It reveals

Table 6

SUMMARY OF t-TESTS COMPARING SCORES OF STUDENTS WITH POSITIVE AND NEGATIVE ATTITUDES ON EACH ITEM ON RACE

Items	Positive		Negative		t
	$\bar{X}$	SD	$\bar{X}$	SD	
Integration 1	.23	.15	.26	.16	1.54
Student Inclusion 1	.30	.20	.31	.21	.17
Linear Distance 1	-.11	.84	-.43	.96	2.59[b]
Identification	-.58	1.54	-.35	1.37	1.16
Power	-.11	1.26	-.07	1.18	.22
Power 4	-.08	3.75	-.51	3.70	.79
Power 9	-.77	3.55	-.21	3.71	1.24
Integration 12	.23	.16	.26	.18	1.19
Student Inclusion 12	.28	.21	.29	.21	.44
Linear Distance 12	-.23	.92	-.30	.92	.50
Cross-racial Reference 4	.73	.79	.80	.80	.60
Cross-racial Reference 9	.71	.85	.85	.87	1.06

a = .001
b = .01
c = .02
d = .05
e = .10

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Table 7

SUMMARY OF t-TESTS COMPARING SCORES OF BLACK STUDENTS WITH POSITIVE AND NEGATIVE ATTITUDES ON EACH ITEM OR RACE

Items	Positive N=54		Negative N=52		t
	X	SD	X	SD	
Integration 1	.24	.15	.28	.18	1.41
Student Inclusion 1	.32	.20	.34	.21	.60
Linear Distance 1	-.27	.98	-.47	.99	1.05
Identification	-.88	1.78	-.54	1.53	1.06
Power	-.03	1.37	-.01	1.30	.07
Power 4	-1.00	3.68	-1.31	3.47	.44
Power 9	-1.70	3.55	.08	3.98	2.43[c]
Integration 12	.25	.16	.26	.18	.25
Student Inclusion 12	.31	.20	.30	.22	.24
Linear Distance 12	-.21	.89	-.31	.92	.57
Cross-racial Reference 4	.69	.82	.83	.83	.88
Cross-racial Reference 9	.54	.79	1.00	.91	2.80[b]

[a]Significant at the .001 level.
[b]Significant at the .01 level.
[c]Significant at the .02 level.
[d]Significant at the .05 level.
[e]Significant at the .10 level.

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that students with negative attitudes scored higher than students with positive attitudes on eight (8) of the twelve (12) variables listed. In fact, students with negative attitudes scored higher than those with positive attitudes on Power 9 and Cross-racial Reference 9 at $p \leq .02$ and .01, respectively. Both items in Nos. 9 yielded scores significantly in the opposite direction as predicted. Therefore, these two items appear not only to be not valid but may be measuring something that is the polar opposite of negative attitudes.

> Inasmuch as Black students with negative attitudes did not score significantly lower than those having positive attitudes, H_2 was not supported.

H_3: Fourth grade White students classified as having negative racial attitudes will score significantly lower than those having positive racial attitudes.

The summary of t-test scores in Table 8 compares White students with positive and negative attitudes on each item of RACE. It revealed that students with negative attitudes scored higher than those with positive attitudes on five (5) of the twelve (12) variables but that this difference was not statistically significant. Students with negative attitudes scored lower than those with positive attitudes on seven (7) of the twelve (12) items but significantly so on Linear Distance 1 at $p \leq .01$. This seems to suggest that Linear Distance 1 in Hypothesis 3, as in Hypothesis 1, is valid and appears to measure the attitudes of fourth grade White students as predicted.

H_3 was supported utilizing Linear Distance 1 and rejected using the other eleven (11) variables.

H_4: Fourth grade Black students will not differ significantly from White students independent of racial attitude.

Table 9 presents a summary of t-test scores which compares Black and White students, independent of racial attitudes. An examination of each item of RACE reveals that Black students scored higher than White students on five (5) of the twelve (12) items but significantly only for Student Inclusion 1 at $p \leq .05$. This seems to suggest that Black fourth grade students can integrate themselves into a mixed group better than White students.

White students scored higher on six (6) of the twelve (12) items, but significantly so on Identification and Power 4 at $p \leq .02$ and .001, respectively. White students appear to identify with their own or opposite groups better than Black students.

It is interesting to note that White students score significantly higher than Black students on Power 4. This implies that White students score highly positive in self-perception and Black students score highly positive in self-perception and Black students score highly negative.

Table 8

SUMMARY OF t-TESTS COMPARING SCORES OF WHITE STUDENTS WITH POSITIVE AND NEGATIVE ATTITUDES ON EACH ITEM ON PACE

Items	Positive N=52		Negative N=46		t
	$\bar{X}$	SD	$\bar{X}$	SD	
Integration 1	.22	.14	.24	.14	.75
Student Inclusion 1	.27	.21	.26	.19	.33
Linear Distance 1	.05	.63	-.40	.94	2.82[b]
Identification	-.27	1.18	-.14	1.15	.54
Power	-.19	1.15	-.13	1.05	.28
Power 4	.88	3.62	.39	3.79	.66
Power 9	.19	3.32	-.35	3.41	.79
Integration 12	.21	.15	.26	.17	1.45
Student Inclusion 12	.24	.20	.28	.22	.84
Linear Distance 12	-.25	.97	-.28	.93	.16
Cross-racial Reference 4	.77	.76	.76	.77	.05
Cross-racial Reference 9	.88	.88	.67	.79	1.24

[a]Significant at the .001 level.
[b]Significant at the .01 level.
[c]Significant at the .02 level.
[d]Significant at the .05 level.
[e]Significant at the .10 level.

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Table 9

SUMMARY OF t-TESTS COMPARING SCORES OF BLACK AND WHITE STUDENTS ON EACH ITEM OF RACE

Items	Black N=106		White N=99		t
	$\bar{X}$	SD	$\bar{X}$	SD	
Integration 1	.26	.17	.23	.14	1.57
Student Inclusion 1	.33	.20	.27	.20	2.26[d]
Linear Distance 1	-.36	.98	-.16	.82	1.55
Identification	-.71	1.66	-.21	1.16	2.48[c]
Power	-.02	1.33	-.16	1.10	.83
Power 4	-1.15	3.57	.65	3.69	3.51[a]
Power 9	-.83	3.85	-.06	3.35	1.47
Integration 12	.25	.17	.23	.16	.77
Student Inclusion 12	.31	.21	.26	.21	1.62
Linear Distance 12	-.26	.90	-.26	.94	.00
Cross-racial Reference 4	.75	.83	.77	.76	.10
Cross-racial Reference 9	.76	.88	.79	.84	.10

a = .001
b = .01
c = .02
d = .05
e = .10

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Both groups scored equally negative utilizing Linear Distance 12.

Diagram B

Student Inclusion 1

	B	W	$\bar{X}$
+	.32	.27	.30
-	.34	.26	.30
$\bar{X}$	.33	.27	

The above breakdown was made of Student Inclusion 1 to assist in interpretation. The mean score of students with positive attitudes was equal to the mean score of students with negative attitudes. The significant difference between the races seems to indicate that on Student Inclusion 1, Black students can integrate themselves into a mixed group, independent of racial attitudes, better than White students.

Hypothesis 4 was not supported utilizing Student Inclusion 1 with Black students and using Identification and Power 4 with White students. Hypothesis 4 was supported utilizing other variables.

Diagram C

Identification

	B	W	$\bar{X}$
+	-.88	-.27	-.58
-	-.54	-.14	-.35
$\bar{X}$	-.71	-.21	

To assist in an interpretation of Identification, the above breakdown was made. The mean score of children with positive attitudes (-.58) was lower than the mean score of children with negative attitudes (-.35). This implies that children with positive attitudes identify more with their own racial group than children with negative attitudes.

It is interesting to note that the analysis made of Linear Distance 1 from Table 5 that Black students scored lower than White students. Linear Distance 1 was not significant in Table 8 and was not significant

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in predicting direction for Black students in Table 6, but was significant in Table 5 for over-all groups and for Whites in Table 7. This might suggest that teachers may be more sensitive or aware of negative attitudes on the part of Whites rather than on the part of Blacks.

Section I included references to the relationships between socio-economic status and racial attitudes. Evidence was presented to support the hypotheses that the higher the socio-economic level the higher the acceptance level of members of opposite racial groups. Type of employment and educational level of parents were used in this study to determine socio-economic level.

The two hundred five (205) instruments returned to the investigator contained 165 responses on the educational qualifications of the parents of the children involved, and 167 responses on their employment status.

It is the opinion of the investigatorsthat many school records are incomplete or little attention is given to them. The responses to the educational qualifications appear to be much more reliable than the responses given for employment. For example, the teacher, in many instances, responded to the question of employment by stating that the parent was employed at General Electric Corp. This did not identify the parent as a custodian or an executive. Therefore, the employment data were considered to be unreliable, and may account for the limited acceptance of H_5 and H_6.

H_5: There will be a high positive correlation between RACE scores and socio-economic status of White fourth grade students.

Table 10a and 10b summarize the education and employment of White families, respectively. Table 10a reveals that the education of parents of White children with positive attitudes did not differ significantly from those with negative attitudes.

Table 10b reveals that type of employment of parents of White children with positive attitudes was significant at $p \leq .10$ when compared to those with negative attitudes. An examination of the table shows negative attitudes greater among the unemployed. It is interesting to note that among professionals, the attitudes are approximately equally divided positive and negative.

H_5 was supported at $p \leq .10$ utilizing employment but rejected using education.

H_6: There will be a high positive correlation between RACE scores and socio-economic status of Black fourth grade students.

Tables 11a and 11b summarize the education and type of employment of families of Black students, respectively. Both tables reveal that the attitudes of parents of children of Black families are not significantly different regardless of their education or type of employment.

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Table 10a

EDUCATIONAL LEVEL OF PARENTS OF WHITE STUDENTS
WITH POSITIVE AND NEGATIVE ATTITUDES

	Positive	Negative	Totals
Less than 8th grade	4	5	9
More than 8th but less than 12th grade	8	5	13
High School Graduate	24	20	44
Some College	1	2	3
College Graduate	8	11	19
Totals	45	43	88

Note: DF = 4

$X^2 = 1.925$

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Table 10b

EMPLOYMENT STATUS OF PARENTS OF WHITE STUDENTS
WITH POSITIVE AND NEGATIVE ATTITUDES

	Positive	Negative	Totals
Unemployed	1	9	10
Laborer	3	3	6
Semi-skilled	14	9	23
Skilled	21	18	39
Professional	4	5	9
Total	43	44	87

Note: DF = 4

$x^2 = 7.814$

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Table 11a

EDUCATIONAL LEVEL OF PARENTS OF BLACK STUDENTS
WITH POSITIVE AND NEGATIVE ATTITUDES

	Positive	Negative	Totals
Less than 8th grade	7	4	11
More than 8th but less than 12th grade	16	23	39
High School Graduate	10	11	21
Some College	2	1	3
College Graduate	2	1	3
Totals	37	40	77

Note: DF = 4

$X^2 = 2.670$

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Table 11b

EMPLOYMENT STATUS OF PARENTS OF BLACK STUDENTS
WITH POSITIVE AND NEGATIVE ATTITUDES

	Positive	Negative	Totals
Unemployed	2	4	6
Laborer	12	9	21
Semi-skilled	11	17	28
Skilled	13	7	20
Professional	4	1	5
Totals	42	38	80

Note: DF = 4

$X^2 = 5.790$

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H_6 was not supported utilizing employment and education.

H_7: Within the negative racial attitude group Black males will score higher on RACE than Black females.

Table 12 summarizes the t-test scores of Black males and females with negative attitudes on each item of RACE. It reveals that Black females scored higher than Black males on eight (8) of the twelve (12) items. Black males scored higher than Black females on four (4) of the twelve (12) items. However, the difference in their scores was not statistically significant.

This seems to indicate that these items on RACE do not distinguish differences between male and female within the negative attitude group.

H_7 was not supported inasmuch as there was no significant difference on the scores of Black males and females with negative attitudes.

H_8: Within the negative racial attitude group White males will score higher on RACE than White females.

Table 13 is a summary of t-test scores for White males and females with negative attitudes on each item of RACE. It reveals that White females scored higher than White males on eight (8) of the twelve (12) items. On Student Inclusion 1, White females scored higher than White males at $p < .10$. White males scored higher on four (4) of the twelve (12) items. The scores on these eleven (11) variables did not differ significantly.

There is little indication that these items on RACE differentiate male and female within the negative attitude group.

H_8 was not supported inasmuch as there was no significant difference utilizing eleven (11) variables and one (1) was significant at .10 with White females scoring higher than White males with negative attitudes.

The scores of Black and White females were not significantly different from those of Black and White males. However, Black and White females scores were higher than all males in six categories as follows:

Integration 1 and Integration 12

Student Inclusion 1 and Student Inclusion 12

Linear Distance 1 and Linear Distance 12

Black females scored higher than Black males on Identification and Power 9. White females scored higher than White males on Power 4 and Cross-racial Reference 9.

Table 12

SUMMARY OF t-TESTS COMPARING SCORES OF BLACK MALES AND FEMALES WITH NEGATIVE ATTITUDES ON EACH ITEM OF RACE

	Male (N=29)		Female (N=23)		
	$\bar{X}$	SD	$\bar{X}$	SD	t
Integration 1	.26	.17	.31	.19	.93
Student Inclusion 1	.31	.21	.39	.20	1.30
Linear Distance 1	-.62	1.05	-.27	.89	1.27
Identification	-.59	1.65	-.48	1.39	.25
Power	-.05	1.26	.04	1.36	.26
Power 4	-.97	3.77	-1.74	3.09	.79
Power 9	-.07	4.05	.26	3.97	.29
Integration 12	.23	.18	.30	.18	1.36
Student Inclusion 12	.28	.23	.33	.20	.89
Linear Distance 12	-.41	.92	-.19	.92	.89
Cross-racial Reference 4	.86	.83	.78	.85	.34
Cross-racial Reference 9	1.03	.91	.96	.93	.30

[a]Significant at the .001 level.
[b]Significant at the .01 level.
[c]Significant at the .02 level.
[d]Significant at the .05 level.
[e]Significant at the .10 level.

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Table 13

SUMMARY OF t-TESTS COMPARING SCORES OF WHITE MALES AND FEMALES WITH NEGATIVE ATTITUDES ON EACH ITEM OF RACE

Items	Male (N=27)		Female (N=19)		
	$\bar{X}$	SD	$\bar{X}$	SD	t
Integration 1	.22	.15	.27	.12	1.32
Student Inclusion 1	.22	.19	.32	.19	1.80[e]
Linear Distance 1	-.42	1.04	-.36	.81	.20
Identification	-.13	1.20	-.16	1.12	.08
Power	-.09	1.09	-.18	1.00	.29
Power 4	.30	4.06	.53	3.45	.20
Power 9	-.30	4.06	-.42	2.27	.12
Integration 12	.25	.16	.27	.18	.29
Student Inclusion 12	.27	.22	.28	.22	.10
Linear Distance 12	-.40	.92	-.11	.93	1.06
Cross-racial Reference 4	.81	.83	.68	.67	.57
Cross-racial Reference 9	.63	.88	.74	.65	.45

[a]Significant at the .001 level.
[b]Significant at the .01 level.
[c]Significant at the .02 level.
[d]Significant at the .05 level.
[e]Significant at the .10 level.

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Summary

A summary done of the findings from RACE, indicate the following:

Teachers gave many more reasons for identifying children as having positive attitudes towards members of the opposite racial group than they could for identifying children as having negative attitudes. This might suggest that teachers might be expressing their personal "likes and dislikes" for specific children rather than describing the attitude one child may have towards another child because of his racial identify.

Employment records were unreliable in that teachers had a tendency to know where a parent was employed but did not know in what capacity. This might suggest that teachers are more concerned with where and how to contact parents in cases of emergency than with becoming aware of the family, its environment, or any family condition.

It is necessary to summarize twelve (12) variables as they related to the eight (8) hypotheses presented in this study.

Linear Distance 1 revealed that students with negative racial attitudes would score lower than those having positive attitudes and, therefore, supported Hypothesis 1.

The second hypothesis was not supported for it predicted that Black students with negative attitudes would score lower than those with positive attitudes. Power 9 and Cross-racial Reference 9 revealed that those with negative attitudes scored higher than those with positive attitudes, which was significant at .02 and .01, respectively, and suggest significant interaction in studying Black children.

Linear Distance 1 revealed that White students classified as having negative attitudes scored significantly lower (.01) than those with positive attitudes. Therefore, Hypothesis 3 was supported utilizing Linear Distance 1.

Inasmuch as Linear Distance 1 was supported when studying the scores of all students and also the scores of White children, but made no significant difference when studying the scores of Black children, might suggest that White children may have a tendency to place themselves further from a selected integrated group than Black children.

The fourth hypothesis was supported using eight (8) variables and not supported utilizing Student Inclusion 1, Identification, and Power 4. Black students scored significantly higher than White students on Student Inclusion 1, which suggests that Black students may tend to integrate themselves into a mixed group to a greater extent than White students. Black students scored significantly lower than White students on Identification and Power 4, which implies a lower self-concept and a tendency to not place themselves into an opposite racial group.

The socio-economic status of the parents had little or no relationship to the racial attitudes of the children studied. Therefore, Hypotheses 5 and 6 were not supported.

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In Hypotheses 7, it was predicted that Black males would score higher than Black females, but the data revealed that there was no significant difference between their scores.

Hypothesis 8 predicted that White males would score higher than White females but the data revealed that there was no significance difference between their scores on all variables except Student Inclusion 1, where it was found that White females scored higher than White males. This might suggest that the White female may integrate herself into an integrated group to a greater extent than the White male.

Many of the variables studied in RACE did not differentiate between positive and negative attitudes of children except for the following:

Linear Distance 1 was significant for White children but not for Black children. Student Inclusion 1 was similarly significant for White children, especially White females; and Power 4 and Identification were significant for Black children.

As indicated above RACE does contain a limited number of items that have adequate reliability and validity. One can question why the extensive investigation into the effects of race and sex. These analyses were performed to identify the effects these variables might have had upon the dependent measures on RACE.

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SECTION IV -- CONCLUSIONS AND RECOMMENDATIONS

Results Summary

The test-retest method used to determine reliability estimates revealed that there was very limited stability in the instrument over a two-week testing period. That is, five (5) of the variables had some reliability, but not enough to justify the categorization of a child's attitude based upon his score. The other seven (7) were not significantly different from zero.

The specific findings of the study are summarized and presented in the order in which the hypotheses were stated.

Hypothesis 1 was supported utilizing Linear Distance 1 and not supported using the other eleven (11) variables.

Hypothesis 2 was not supported.

Hypothesis 3 was supported utilizing Linear Distance 1 and not supported utilizing the other eleven (11) variables.

Hypothesis 4 was not supported on Student Inclusion 1 and supported using the other eleven (11) variables by Black students. Hypothesis 4 was not supported utilizing Identification and Power 4 but was supported using the other ten (10) variables by White students.

Hypothesis 5 was supported utilizing employment but not supported using education of parents of White children.

Hypothesis 6 was not supported utilizing education and employment of parents of Black children.

Hypothesis 7 was not supported.

Hypothesis 8 was not supported.

Conclusions

An examination of the data derived from this investigation provided the bases for several conclusions.

A problem inherent in relying upon teacher judgment to identify the racial attitudes of fourth grade children makes it appear that they used different criteria in the selection process and this, consequently, makes it difficult to obtain homogeneous groups.

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A review of the literature leads one to assume that among people of lower status, there exists a consistent pattern of intolerance and prejudice (Lipset, 1959, p. 489; Wirth, 1944, p. 304; Steinberg, 1971, pp. 14-17). This study did not support that assumption. Type of employment is a major factor in determining economic status, but school records proved to be an unreliable source for such information.

In general, the instrument is invalid but items Linear Distance 1, Student Inclusion 1, Identification, and Power 4 demonstrated significance and appear to have some validity in themselves.

This study revealed that Black children in this sample have a lower self-concept and tend not to place themselves into an opposite racial group; rather, they tend to integrate themselves into a mixed integrated group.

Further it was found that White males have a tendency to place themselves further from a selected integrated group. However, the White female tends to integrate herself into an integrated group.

However, many problems are encountered when an attempt is made to study intergroup relations. One specific problem is the identification of a consistent sample of children who have positive or negative racial attitudes. The question arises as to the relationship between attitudes and behavior. According to a study by Mill (1952, pp. 29-44), attitude may not be correlated with behavior. In fact, there may be striking differences in the patterns of racial behavior during working hours on the job and nonworking hours in the community. Therefore, two questions are important. Does a specific attitude result in a specific behavior? Does this behavior exhibit itself in all situations?

In this study, teachers were asked to identify children with positive or negative attitudes towards members of the opposite racial groups. Their responses, therefore, were limited to behaviors primarily exhibited in a school environment. This raises a question as to whether behavior in a school environment is similar to behavior outside this environment but with which teachers may be totally unfamiliar.

There appears to be the problem with the basis teachers use to select children that belong in one of the two groups. For this study they were able to give many reasons for categorizing children as having positive attitudes, but only a few for children as having negative attitudes. The problem is magnified when an attempt is made to combine children into groups when those children

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have been categorized by one of several teachers. It becomes difficult to determine if all teachers used the same frame of reference in the selection process, despite their instructions. A prime example of this lack of agreement occurred when two children were absent from school on the day the instrument was administered. When the children returned to school, the homeroom teacher was absent and another teacher, who had children involved in the study, administered the instrument to the two children. One of the instruments had a note attached when it was returned to the investigator which said: "Who said this child has a negative attitude? He was in my room last year and I didn't see anything negative in his attitude." Therefore, to arrive at two separate homogeneous groups of children with positive and negative attitudes relying upon teacher judgment is a problem to be resolved.

From the twelve variables in this study, teachers might be able to use Identification and Power 4 to identify Black children who have a lower self-concept. Teachers could also use Linear Distance 1 to identify White children who tend to place themselves away from Black children. This could allow teachers to plan and implement programs to change the existing attitude.

Of course, this raises the question as to whether programs planned and implemented to change attitudes do, in fact, change behavior. Keisler, Collins, Muller (1969, pp. 37-38) summarized several studies concerning attitude change and behavior change. Some of the studies found no relationship between attitudinal change and behavioral change; in fact, the relationship was sometimes slightly negative. In addition, some studies showed significant belief changes but nonsignificant behavioral change.

Recommendations for Future Research

Further research in the problem area of the present study should include an investigation of reliable sources and procedures for the classification of children as to whether they have positive or negative attitudes towards members of opposite racial groups. Perhaps trained observers, who may be more objective, could be utilized in observing children at school, in the lunch room, on the playground, and to and from school. These observers may also become participant observers in various environments.

This study might be replicated utilizing a smaller sample where the attitudes can be identified more reliably as to whether they, in fact, are positive or negative. With a smaller sample, observers can talk to neighbors, peers, and parents of children to be studied.

The problems inherent in relying upon teacher judgment to identify the attitudes of children might suggest another method

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of replicating this validation. It is suggested that an examination be made of a small sample of children. The responses, after being scored, could be divided into groups of high and low scores. Trained observers could participate with and observe these children under various environmental conditions to determine if there is a relationship between high scores and positive racial attitudes, and between low scores and negative racial attitudes.

Conversation with several of the elementary school principals, after the data had been collected, suggested that a study of this type may be more reliable if it is made of sixth grade children as opposed to fourth graders. It was suggested that overt behavior appears to be more highly exhibited by sixth graders. There were several reasons given for this overt behavior. First, it is possible that in a school atmosphere, fourth graders are more intent upon exhibiting behaviors that satisfy the teacher than are sixth graders whose students are leaving for junior high in a few months. At the sixth grade level, competition between Black and White males becomes greater with the introduction of competitive sports. Of greater importance may be the fact that the age of puberty introduces many fears among parents and greater emphasis is placed upon separation of racial groups. Therefore, this suggests a replication of the investigation using an older age group.

Items 3, 5, 7, and 10 of the instrument used in this study were combined into the "Power" variable. Power did not correlate with any other variable in the instrument. An examination of these four items revealed that lines of uneven length were drawn from the center picture to the boxes surrounding the picture. It is possible that these uneven lines influenced the responses of the children. Wherein the longest line which was opposite the picture was supposed to indicate equal status, may have instead indicated to the child some symbol of social distance. Therefore, it is recommended that these boxes be drawn equal distance from the picture in the center of the design.

Power 4 and Power 9, Cross-racial Reference 4 and Cross-Racial Reference 9 may need to be examined for another procedure in scoring. In the present scoring procedure there is no way of determining if race or sex had an influence in children's responses.

Pictures were used in this instrument and might have become an uncontrolled variable inasmuch as long hair, glasses, or a smile or frown might have influenced responses. Campbell (1950, pp. 31-32) for example, reported that when examining attitudes, isolated responses are unimportant. However, in his review of Horowitz's (1936) study, Campbell indicated that one must look for response consistencies when photographs of Black and White children were used to make decisions concerning the occurrence of race prejudice in children. This might suggest that pictures

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may not be the best device to use in examining racial attitude.

An examination of the pictures of Black children used in this study revealed that the majority were dark-skinned. According to Asher and Allen (1969, p. 161) and Clark (1963, p. 58), skin color has a major influence on Black children in how they responded to pictures on racial preference. Therefore, in order to eliminate these possibilities, silhouettes might be suggested, using varying degrees of color to represent Black children for this type of study.

Many researchers are attempting to design instruments to take a "look" at students' racial attitudes. This instrument appears to lack the stability necessary for reliable research. However, a few items appear to distinguish between positive and negative attitudes and warrant further research.

It is recommended that a revision of this instrument be made and the validation procedures suggested be employed in follow-up studies for finalizing an instrument to measure racial attitudes.

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